

Final Exam

Sustainability Problems

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Discuss the relationship between corporations and sustainability. Include at least four references from this semester's annotations

In this entry I will discuss the complex relationship between corporations and sustainability, specifically using supporting references from the films *The Corporation*, *Food Inc*, *The Yes Men Fix the World*, and *Not Business As Usual*. In doing so I aim to elucidate the risks represented for sustainability by corporations and explore some potential solutions.

It is likely that most people interested in sustainability view corporations as villainous forces in today's society and economy, and it's reasonable to do so. But a corporation in and of itself is not necessarily an evil thing; it's much like money, which is a tool, but historically has led to greed and corruption the same way corporations have. The corporation's nature is ultimately dependent on its definition, as we can see in the contrasting definitions of Milton Friedman in *The Yes Men* and *The Corporation*, and the individuals starting B-Corporations in *Not Business As Usual*. Both of the first two films contain potent quotes from Friedman, remarking on how greed is a positive thing which creates competition in markets and ultimately benefits consumers greatly. In practice, Friedman's doctrine of deregulation is questionable at best, and disastrous and worst, since most large corporations do much more to harm sustainability efforts than advance them.

One thing that was interesting that *The Corporation* touched on, is that ultimately corporations are comprised of people, and that is often lost. Friedman and supporters of his perspective say that Corporations ought to be treated as people under the law, as they are today, but regardless, behind the mask of any given corporation, is one or more people. This was most potent in the clip from *The Corporation* where protestors line up outside of the CEO of Shell's house, and rather than call the cops, he and his wife give the protestors tea and talk with them. This is incredibly uncomfortable to watch, but brings into the light one of the most powerful weapons supporters of sustainability have against misbehaving corporations: the fact that they are run by people. In practice, most CEOs and CFOs of large corporations care little for sustainability efforts, but we still must not forget that there are people making these decisions, and on any given day, people can decide to not be evil.

Given the current behavior of large corporations and their past track record, it's understandable to perceive them as villains across the board. Large public corporations are beholden to their shareholders, and exemplify the qualities extolled by Friedman. They use any loophole or allowance to their advantage to accumulate more capital and generate more revenue. They ensure future profits by lobbying congress and getting politicians "in their back pockets" but supporting their elections with unspoken agreements that politicians will support and

oppose the bills that threaten their bottom line. This was particularly evident in the film “Food Inc”, where it becomes clear that governmental agencies like the FDA that were created to promote public health and protect consumers, wind up actually being a shield for large corporations. Specifically the film highlights Monsanto’s lobbying efforts as well as the large lobby of the poultry and beef industries. This works against sustainability in a political sense by furthering gridlock and making politicians care more about the interests of corporations than those of the citizens they are to be representing in the first place. It works against economic sustainability by concentrating capital in the hands of the already wealthy, and encouraging corporations to pay workers as little as possible.

Corporations also generally work against environmental sustainability as well. Corporations and their industrial operations are responsible for putting large amounts of greenhouse gases into the atmosphere along with a smorgasbord of other harmful effects. *The Yes Men* film highlights DOW Chemical’s culpability in the Bhopal disaster where a chemical spill polluted a large area and resulted in over 3000 deaths and over 500,000 injuries. The BP oil spill was very recently, but still causes ecological damage to this day. In 3rd world countries, western corporations operate facilities without waste water treatment systems and flush harmful chemicals and waste into the water supply causing environmental and public health damage. *Not Business As Usual* highlights waste water treatment as a specific area that certain businesses are aiming to improve. All of these things don’t reflect well on the interest of corporations in sustainability in any regard. If a corporation’s role is, as Friedman proposes, to create capital for shareholders, well then it makes sense to ruthlessly seek to increase profits at all cost, for now at least.

In *Not Business As Usual*, a different take on the corporation is offered. In the film the idea of “conscious capitalism” is explored, where businesses to to turn a profit, but not only turn a profit, and not at the cost of important sustainability issues. Specifically, many of the corporations highlighted are B Corps which is a separate designation than other for-profit companies which ensures the B Corps actually stick to their stated social values. I think this is compelling because it suggests that corporations can actually be sustainable in terms of not only furthering their own existence but contributing to society and promoting environmental issues. A lot of times there is an assumption that all of capitalism needs to die before we can become sustainable (which may still be true), but B Corps offer a glimpse at an alternative.

One argument against the ruthlessness of corporations that I find compelling, is that their exploitation of resources and people actually works against the economic stability and sustainability of the corporation itself in the long run. By a corporation working against environmental and economic sustainability of the rest of the

world and society, it is implicitly damaging its own ability to make profits down the road. This allows one to frame an argument for corporate sustainability in terms of maximizing not temporary profit but longevity of revenue and markets.

In summary, corporations may be people under the law but they are ultimately controlled by actual people as well. People who can think and feel and hopefully change if the practices of the business they run are not good. I think that viewing bad corporations as the people behind them is a more constructive way to combat their ill-effects, as it makes the problem seem more likely to be able to be solved. *The Corporation* highlights a number of executives of companies that helped their corporations pivot towards a more sustainable future. The idea of B Corps do offer a different take on the issue, but unfortunately it's very difficult to imagine corporations the size of the Fortune 500 operating this way. Nonetheless, I could see a future where consumers become more conscious and opt for smaller B Corps over larger, less sustainable corporations, and I for one will try to contribute to that future.

Discuss the relationship between social networks (Web and Internet) and sustainability. Include problems and solutions.

The internet and social media have revolutionized communication. Information is more plentiful and accessible now than it has ever been. With these advances comes more sustainability media and conversation, which is a positive thing. Activists can mobilize easier and citizens consume information on sustainability where it previously may have been difficult to obtain. There is no doubt that social media and the web accelerate cultural change, but what I struggle with is whether the mediums themselves are sustainable. In this essay I will examine the economic sustainability of social networks and the web, as well as the environmental sustainability of the hardware required to access the internet, and determine whether these things outweigh the social good done by increased access to information and communication for citizens.

Sustainability as an area of study really has developed in tandem with modern technology. The word itself was first used prominently in descriptions of development and environmentalism in the late 80s, and gained more traction throughout the 90s to the point where academic curriculum and research reflected the trends towards sustainability as a value and goal. At the same time, the world wide web was made accessible to consumers and the cost of consumer technology came down and dependability of internet service providers and wireless

providers improved. There is no doubt that advances in new media and communication contributed to the rapid embrace of the ideas of sustainability.

With the first social networks like Xanga, LiveJournal, Friendster, and MySpace along with the increase in blogging, came for the first time the ability for a person with essentially no capital to communicate to millions of people instantly. This disrupted traditional media which was largely controlled by large corporations, and remains to be. With MySpace, and Facebook and Twitter after it, along with the revolution of Mobile Computing, large percentages of the country had access to the internet and one another from anywhere, free of the censorship of traditional media which comes in the form of conflicts of interest. The nature of the disruptive technologies of the web as a storage medium for information, and social networks as platforms for mobilization, reflect the disruptive nature of the content of sustainability education, which necessitates shifts in utilization of resources, capital, labor, etc. When one considers the concentration of capital in the debates over sustainability, those in favor of efforts and activism are very much the underdogs. Without the subversive mediums of the internet, the various movements within sustainability could be crushed.

In the past few years, we've seen social media play a huge role in combating large systems and dismantling old structures. Twitter and Facebook played a huge role in toppling oppressive regimes in the Arab Spring. SOPA and PIPA which would have hurt sustainability movements online by restricting the web were defeated by movements on social media and embraced by large tech companies. Events like The People's Climate March along with other actions wouldn't be possible without the internet being the glue that holds those grassroots movements together.

It's now clear that social media and the web have played an integral role in advancing sustainability in terms of publishing of information and mobilizing citizens, but the central question I have is, "Is the potential for advancing sustainability via the internet undermined by lack of sustainability at a hardware and software level?"

At a hardware level, the web and social media run on servers and databases, and are accessed via personal computers, smartphones, tablets, etc. These items represent huge sustainability challenges. The mining of semi-conductors for microprocessors has huge negative impacts on the environment. It takes a lot of energy to get these rare-earth metals, resulting in serious carbon emissions, along with mercury, barium, lead, chromium and cadmium between the mining and emissions. These rare earth metals are toxic and rarely disposed of properly. They can cause harm to those involved in the mining and manufacturing of them. Many of the components in these devices are made out of plastic as well, further perpetuating our reliance on fossil fuels. Many consumer

products not made from plastic are made from milled or sand-blasted anodized aluminum, an incredibly energy intensive manufacturing process for a device that may only last a few years and is rarely recycled properly. There's no doubt that there are serious environmental harms done by the mining of the materials in tech products and manufacturing of the products themselves.

In terms of software, we like to think romantically about the freedom and openness of the web and social media, but is this really the case? Twitter and Facebook are publicly traded companies, which means they have to generate revenue and appease shareholders. This makes using these platforms as an integral part of grassroots movements and furthering sustainability education highly questionable. Ultimately, these software companies we like to think are on the side of citizens need to make money off of their users and stay in the back just like any non-tech company. This means that their capital is ultimately their user bases. These companies were founded with angel investments and venture capital, because they had no business models to start. Social networks seek explosive growth up front to gain mind-share with users, and figure out how to monetize later.

This is absolutely not a sustainable business model. These companies currently make money, by selling ads that are highly targeted because of the amount of user data that's available, but if one of these companies suddenly became "uncool" and lost their cultural place, they would be worth nothing. If users paid for accounts with the companies, that may be a sustainable business model. But free-with-ads is not a long term business plan for companies whose existence is contingent on having lots of users.

Lastly, control of the internet is ultimately controlled privately, but internet service providers and wireless service providers. They don't make affordable or reliable service a top priority, and they are also large top-heavy corporations. This too undermines things which rely on the internet for their existence, like knowledge bases and communication platforms.

As you can now see, there are definite concerns about the advances in communication and education around sustainability being counteracted by the drawbacks of modern technology. But I believe the situation can improve. I feel hardware companies need to continue their trend toward simple more renewable materials and less energy-consumptive manufacturing processes. Luckily this is already happening, so it needs to continue to happen, and more aggressively. Additionally, I feel the government needs to put certain laws in place to guarantee citizens affordable access to the internet and reasonable speeds, which other countries have. It would also be good to see some sort of distributed or open source social network that wasn't controlled by venture-capital backed or publicly traded companies. This could ensure that no matter what happens there is a reliable medium with which to share and organize. All in all, the internet and modern tech is very young and already

appears to be affecting change. I'm optimistic about manufacturing processes and service providers improving and making the web and social media reliable and sustainable ways of promoting sustainability education.

Identify key characteristics of the best sustainability media. Reference at least five (5) examples from films we watched in class or from your annotations this semester.

Since sustainability issues aren't necessarily covered by the mainstream news on a daily basis, documentaries have played an important role in shedding light on some of these important issues. Some sustainability films are well executed, but others fall flat. In fighting for the public's attention, it's important that these films are successful. After viewing about 15 of these films this semester in class and on my own, I've identified some of the characteristics I feel are important in making sustainability media, specifically films, successful.

First, successful films should utilize valid science while avoiding alarmist rhetoric. When presenting statistics, this may mean using data visualizations or animations, but these should be honest in nature. Any data visualizations should accurately represent the data to make it easier for viewers to understand, but they should not be designed to skew the viewer's perspective in any particular direction that does not come necessarily from the data. The best films use scientific models and predictions that don't become too quickly outdated. When predictions and figures are outdated quickly, it makes a film feel less reputable and out of date, so the viewer may risk perceiving other details as not reputable. In the film *Blind Spot*, our class had to acknowledge out of date figures which led to skepticism of some of the other predictions and models. Additionally, even when using scientific data, successful films avoid alarmist rhetoric, and get the point across succinctly without hyperbole. Using alarmist rhetoric is played out and can trigger skepticism with viewers, especially when a lot of sustainability films use it. For example, the film *GMO OMG* used really questionable science to begin with, and coupled that with deceptive graphics and alarmist rhetoric with no real basis in science. The best films let the data do the talking and cite their sources.

Additionally, successful sustainability films offer tangible suggestions of what viewers can do to get involved with the topics discussed in the film. It can discourage viewers to share disheartening projections and ideas with no suggestions for how to take action. Even if a given film is just about awareness, it should offer suggestions as to how the viewer can at least continue to learn if their interest has been piqued. I thought *Food Inc* did a great job of using attractive title slides at the end of the film to inform viewers where they should go to learn more. It

also makes the discouraging nature of the film seem more optimistic by letting viewers know that they can make a difference. If a film doesn't let viewers know what they can do to make a difference, why make a sustainability film?

Good films also offer a diverse range of voices. Only interviews with a specific race or gender of person can subtly suggest to viewers that only those type of people are engaged with sustainability, and could discourage those different from the people represented in the film away from getting more engaged. Having diverse voices allows diverse audiences to identify with the film, and different perspectives always enhance films by allowing viewers to understand ideas and contexts they wouldn't otherwise. In the film *The Blind Spot*, most of the people in the film in cutaway interviews are white men in suits, which could alienate viewers and lack salience. Whereas the film *Not Business As Usual* had an incredibly diverse lineup of speakers and interviewees, which is preferable.

Lastly, successful sustainability media has high production value. The film *What Would Jesus Buy?* has aged terribly with relatively low production value. This makes the film difficult to watch and take seriously. This contrasts sharply with one of my favorite films, *Chasing Ice*, which has stunning visuals and overall direction and editing. The most powerful sequence in that film is when the photographer that the film focuses on presents his incredible time lapse footage set to subtle but serious minimal classical music. It is an emotional sequence very well produced and hard not to be moved by. *Food Inc* also has incredibly high production value. The film opens with a very creative scene in a super market doubling as the opening credits. The animations are inventive and believable and that immediately establishes reputability with a viewer. Well produced and executed films demonstrate a serious attitude toward the content of the film which makes viewers feel the same way. Poorly produced films make a viewer think that the filmmakers don't care about the topic. It helps to have a large budget to achieve the right production quality, too.

Sustainability media overall will continue to improve, but by using solid science and honest infographics, coupled with clear calls to action, diverse voices and high production quality, directors and filmmakers can go a long way in making great films.

Explain five (5) actions that you think the average citizens can/should take to advance sustainability. Include concrete examples to illustrate your ideas.

There are a wide range of actions that average citizens could take to advance sustainability, ranging from very disruptive of a particular lifestyle to not at all. I wanted to come up with some approachable items that a given family/home could take to advance sustainability with minor to medium disruption of lifestyle/standard of living.

First, average citizens should limit the use of fossil fuels due to transportation that they are responsible for. This addresses the sustainability issues of carbon emissions, scarcity of resources, and also promotes community. The steps to do so are very approachable for most folks. The family should accurately evaluate their transportation needs. People don't need to be driving SUVs at all, and unless a truck is specifically being used for towing or hauling, they are unnecessary too. Additionally, average citizens should value fuel economy over horsepower, and safety over style. Along with trading in or selling any gas guzzlers or unnecessary cars, citizens should always seek to carpool or take public transit when possible. Carpools promote community and dramatically lessen fuel consumption and cost for the riders. Using public transit invests money into the system which usually needs it badly to make it a better and more sustainable experience. By only driving economy/fuel efficient cars, carpooling, and taking public transit when possible average citizens reduce their carbon footprint, save money, don't needlessly waste fossil fuels, engage in community and put money back into public transit.

Secondly, average citizens should be more mindful of their energy consumption in their homes. Drying clothes on a line or rack instead of in the dryer not only saves money and energy, but it lengthens the life of your garments. The drying process is generally damaging to fabrics, and it not meant for higher quality fabrics like wool anyway. Additionally, lights left on in the home are sources of significant waste over time. It's incredibly easy to just make sure you shut lights off or put them on a timer, or use some of the new smart-lighting and control it from your phone to double check your home when you feel like it. Lastly, a lot of money is wasted heating homes to be comfortable. Consumers could save money and not use fuel unnecessarily by instead layering their clothing to stay warm in the home, and sleeping with higher quality comforters, likewise in areas with hot summers, using strategies other than air conditioning to cool the home is advisable as well. These are several small and approachable changes.

Third, average citizens can make better purchasing decisions to promote sustainability. Buying junk food from Walmart isn't good at all, it's better to buy healthy local food from a trusted market or coop. This ensures the quality of the food and stimulates local economies, and promotes better health, assuming what you're buying is healthy. In addition to food, average citizens should buy higher quality products that they won't have to replace as often, in doing so they are managing money better, not contributing to waste and fighting the culture of

consumerism and excess. The same goes for clothing; average citizens can invest in clothing that isn't the result of oppressive economies and bad quality materials and get better value and promote ethical production practices. By making ethical food, product and clothing choices average citizens can be healthier, save money over time, and stimulate just economies and companies.

Fourth, average citizens should live in spaces that are simply ample and not excessive for their needs, and avoid high interest loans in paying for things. An immense amount of energy is wasted operating needlessly large buildings; if a family had just the space they needed they would save on the actual home and the energy and footprint associated with maintaining it. Living in a smaller place would also deter them from buying additional things or maybe even subtly deter them from continuing to overpopulate the planet. If a citizen owns a car or home, they should avoid financing it as best as they can to save money and be more free to adjust their life and location as needed. By doing this an average citizen can save money, reduce carbon footprint, and avoid being beholden to banks and financiers.

Lastly, average citizens can use their power to vote and voice their opinion, and their agency and free speech to organize and take action. Every citizen should vote to promote candidates that advance sustainability, and work to fight against special interest groups and lobbyists that have a stranglehold on government. Citizens can use free speech to educate one another and speak out against corruption. This is essential in developing a community of peaceful resistance against unethical and unsustainable systems and structures. By doing this, average citizens help vote out corruption and ensure that tomorrow's youth grows up with a more healthy perspective.

All of these things I've mentioned are doable. It might not be uncomfortable to sell your home or car or stop buying things or drying your clothes, but if even more drastic measures aren't taken soon, people won't be giving things up willfully.

Explain five (5) actions that you think the US government should take to advance sustainability. Include concrete examples to illustrate your ideas.

If the role of the civil government is to promote the general welfare of the people, the US government has failed in ensuring that adequate measures are taken to preserve the future of general welfare. There seems to be an

inevitability that nothing productive will happen through government, and that no one really cares about citizens, but rather appealing to the special interest groups that got them elected, and making sure of their reelection. Because of the general unhelpfulness of government at this present time, it makes it easy to spot the first steps that can be taken towards advancing sustainability.

First, it seems obvious to move forward with existing proposals to regulate state carbon emissions. We are already way behind doing this, and the US could posture itself as world leader if it introduced drastic new measures to reduce emissions and reward companies and states that follow through. In the beginning stages of these changes, it would make sure that states can adjust by allowing the cap-and-trade method of selling between states. This provides even more reward to states to get emissions down. Co2 emissions may get more lip service than every other sustainability issue combined, but that's in part because it is in fact a major issue. It would be great to see a mandate to cut emissions by more than half by 2030. This would hope to slow the effects of anthropomorphic global warming and also bring a heightened awareness to these issues.

Next, the government should require certain gas mileage from cars, and penalize companies and buyers of unnecessarily large or inefficient cars. All car companies have the means to create much more efficient cars, but they don't need to roll them out until they have to, and oil companies lobby the government to avoid regulation of fuel economies. Doing this would promote consumption of less gas, and drive the cost of gas guzzlers up and hopefully deter buyers from purchasing the frivolous vehicles. In addition to this, the government could give even better tax credits to electric car buyers like Tesla customers. This would make electric options even more affordable; by increasing the gas tax a bit you could fund these electric credits. By doing this you're encouraging less consumption of fuel and starting to loosen the grip of the oil lobby on congress.

Third, the government should review and overhaul public transportation in most major cities. Most large cities are not very bike-friendly, and lack comprehensive public transit. This further perpetuates our reliance on cars, even city dwellers. By expanding public transit and investing in these changes you are making cities more livable and affordable, clearing up traffic and reducing pollution and increasing air quality. Revamping roads to have dedicated bus lanes and putting bike lanes on the other side of parked cars, like Bogota, Colombia, would go a long way in accomplishing this. This allows the city to grow and for folks to get around affordably and in an environmentally friendly manner, while promoting public health.

Fourth, the government should completely restructure the EPA, FDA, FCC and other organizations in government that were originally created for the benefit of the people but have been co-opted by former

lobbyists. The EPA is a joke largely because of the bureaucracy that leads to someone being appointed to it, and the same goes of the other aforementioned organizations. Right now, the internet is in grave danger of being controlled even further by service providers, as the FCC chairman Tom Wheeler is anti-net neutrality. Unsurprisingly, he was in charge of a large internet/cable lobby group prior to being appointed. The same goes with the FDA having major food lobbyists. These things are dangerous for the American people from an environmental, cultural, and nutritional perspective if these people are ultimately in control of those decisions.

Lastly, I think the US should implement sweeping defense and law enforcement changes. Defense spending is so out of control that military grade weapons and armor and equipment is being given to local law enforcement and nothing good has come of it. In other countries, there are single digit gun deaths yearly, and police don't need to carry deadly weapons. I would propose an elimination of firearms for citizens and law enforcement except for very specialized law enforcement who undergo intense training. This would be in concert with major cuts to defense spending to save money. These decisions would promote economical sustainability but perhaps equally important, they would contribute to cultural sustainability as race relations currently are immensely strained, and part of that distrust of the police could be helped by not having them have military grade weapons. Healing wounds in oppressed communities could help in a multitude of sustainability matrix issues.

It is kind of sad to write about what the government should do because it makes you realize just how incapable they really are.

Identify five (5) the college students should take to advance sustainability. Include concrete examples to illustrate your ideas.

College represents a unique time in most peoples lives; a time of immense growth and shaping of perspective. Our views are often more malleable when we're young, and our passion allows us to be principled and idealistic in ways that may diminish over time. College students often make up the faces of social movements in the US and abroad, between labor movements in Spain, the Arab Spring, and Occupy, college students can be moved to act in ways that perhaps those with less passion, or time on there hands, can. Knowing this, I've come up with 5 very approachable things that college students can do to advance sustainability.

First college students need to hold their own campuses accountable. Most institutions in this country are very old, obviously much older than the students who attend them. The policies and practices of these institutions are often stuck in the past, and college students can play a role in bringing their colleges into the present day. Many colleges could do much better in renovating or modifying buildings to be more energy efficient if the buildings are old. On this campus, asbestos was an issue that had to be taken care of over time, which can cause serious health issues. Additionally, RPI has no composting system. Students can demand that their campuses not only try and compost, but avail those compost containers to students living on and off campus. They can also petition to get courses added that focus on sustainability issues if they don't exist at a given school yet. Students are often more in touch with sustainability issues than administrators, so as the customers of the school they need to be forceful in demanding their campus improve in efficiency and energy use and diverse course offerings to students.

Related to that, students should use the infrastructure provided by the school to organize and plan events and clubs around sustainability and activism. Most colleges have ways to get clubs funded by the school, and creating on campus organizations and meetings would promote campus sustainability, offer a haven to those other students passionate about similar issues, and hopefully engage additional students who don't know much about sustainability topics. If enough colleges did this, there could be an overarching club or organization that allowed various campus groups to interface and plan actions and events together and network about relevant issues that they are facing. In doing this students are promoting sustainability and community using their respective universities' resources.

Next, students should seek to walk or bike to campus rather than drive, or take public transit or campus transit if it's available. This saves money and cuts down on an individual student's carbon footprint by saving emissions and energy. Additionally, biking or to a lesser extent walking helps students stay healthy, which especially important when adjusting to cooking for oneself or eating in dining halls which are typically not terribly healthy. This can also improve traffic and air quality around campus, and promote community.

Fourth, students should not only walk or bike to campus but to local establishments. A college represents a significant source of income for a given community through the students spending, so students should do their best to shop locally as opposed to large chains or driving to a poor-quality super market. If possible students should go to local farmer's markets like the one in Troy. Doing this allows students to engage with the community, eat healthier, and stimulate local economies as opposed to large corporations. Students could try

and buy everything they need locally as well, as it can go a long way to helping the resiliency of a campus community if currency is staying there and wages are up.

Lastly, students should avoid taking on lots of student debt. Obviously no student wants debt, but inevitably they wind up with it, and it cost themselves and the economy a lot of money. There is currently over 1 trillion dollars in student loan debt nationally, and the economy can't afford for that to continue and neither can the students defaulting on their loans. Students need to be proactive about not accumulating debt as they become beholden to others and are less free to do what they feel they should because they have to make loan payments. There is a lot of pressure on high school graduates to attend college right away, but there is nothing wrong with taking a few years off to work and save up for college rather than taking out loans and getting burned on interest or defaulting. Additionally, students shouldn't be stigmatized for choosing to do prerequisites at a community college as it can save a lot of money in the long run between cheaper price per credit hour and the savings of living at home. Also, if students need to borrow money, it's better that they do it from a family member who will charge little or no interest, and missed or late payments don't affect credit and contribute to debt. Student loan debt is such a problem that high school graduates need to think about it up front rather than after the fact.

What I've laid out are manageable things any college student interested in advancing sustainability can do themselves and in their community. If the culture of campuses was more sustainable in general, than more radical measures could be proposed, but even getting what I suggested working on most campuses is challenging enough as is.